



## UNITED STATES DEPARTMENT OF COMMERCE Patent and Trademark Office

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SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT		ATTORNEY DOCKET NO.
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THOMAS O HOOVER HAMILTON BROCK SMITH & REYNOLDS TWO MILITIA DRIVE LEXINGTON MA 02173

EXAMINER				
PAPER NUMBER				
18				

DATE MAILED:	Ø8/19/9/
EXAMINER INTERVIEW SUMMARY RECORD	
All participants (applicant, applicant's representative, PTO personnel):	
1) Mr. Bruttomesso (33840) (3)	
2) Examiner Wa (4)	
Date of interview $8-18-97$	
Type: ☐ Telephonic ☐ Personal (copy is given to ☐ applicant 💋 applicant's representative).	
Exhibit shown or demonstration conducted: DYes DNo. If yes, brief description: Active MATI'N	1 liquid crystal
display	
Agreement 🔲 was reached with respect to some or all of the claims in question. 🏿 🛱 was not reached.	
Claims discussed: proposal dalou 21	
dentification of prior art discussed:	
Description of the general nature of what was agreed to if an agreement was reached, or any other comments: disculations. Applicant will fike IDS for further	ussed proposal
claims continued will tite IDS for further	Manination
Control of the Contro	
A fuller description, if necessary, and a copy of the amendments, if available, which the examiner agreed would rend attached. Also, where no copy of the amendments which would render the claims allowable is available, a summary thereo	er the claims allowable must be of must be attached.)
Unless the paragraphs below have been checked to indicate to the contrary, A FORMAL WRITTEN RESPONSE TO T NOT WAIVED AND MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW (e.g., items 1–7 on the reverse side o ast Office action has already been filed, then applicant is given one month from this interview date to provide a statement	of this form). If a response to the
It is not necessary for applicant to provide a separate record of the substance of the interview.	
☐ Since the examiner's interview summary above (including any attachments) reflects a complete response to each requirements that may be present in the last Office action, and since the claims are now allowable, this completed response requirements of the last Office action.	of the objections, rejections and I form is considered to fulfill the
La	

PTOL-413 (REV. 1-84)

Examiner's Signature

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Art Unit: 2609

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. Claims 21-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schoolman (U.S. Patent no. 5,281,957) in view of Spitzer (WO 93/18428) and Harttori (U.S. Patent No. 4,636,866)

As to claims 21-70, Schoolman discloses a portable communication device (or a telephone housing) comprising: a device housing (41); a receiver (54) within the housing that receives image data; a liquid crystal display (44, 45); a display driver (3); a lens (33, 34) that enlarges an image displayed on the display for viewing by a user; and a display control (3).

It is noted that Schoolman fails to disclose that the receiver is a wireless receiver and a display control panel on the display housing. Schoolman also fails to disclose the liquid crystal display having an active matrix circuit including an array transistors and an array of pixel electrodes such that the active matrix circuit is bonded to an optically transmissive substrate with an adhesive layer.

Harttori is cited to teach a liquid crystal head-mounted display device which comprises a wireless receiver (e.g. TV antenna) and a display controller is incorporated into the display housing.

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Spitzer is cited to teach an active matrix display with red, green and blue blacklight sources for a head-mounted display system similar to applicant.

It would have been obvious to one of ordinary skill in the art to have modified Schoolman with the features of wireless receiver and integrated controller as taught by Harttori, because the wireless receiver can provide a TV image to the user and the integrated controller can provide a convenient way to the user for controlling the display image.

Further, it would have been obvious to one of ordinary skill in the art to have used an active matrix liquid crystal of Spitzer for the liquid crystal display of Schoolman because the active matrix liquid crystal display can provide sharper image than the regular liquid crystal display (e.g passive type LCD).

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xiao Wu whose telephone number is (703) 305-4721. The examiner can normally be reached on Monday to Friday from 8:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hierpe, can be reached on (703) 305-4709.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

## Any response to this action should be mailed to:

Commissioner of Patents and Trademarks Washington, D.C. 20231

## or faxed to:

(703) 308-9051, (for formal communications intended for entry)

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Or:

(703) 308-6606 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

XW

July 24, 1997

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PRIMARY EXAMINER ART UNIT 2609